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- (54) **PRECISION MICROWAVE/MILLIMETER WAVE MODULATED SIGNAL SOURCE**
- (75) Inventors: **David J. Swanick**, Wakefield, RI (US);
Gautam Misra, Chelmsford, MA (US);
Kichul Cho, North Kingstown, RI (US)

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- (73) Assignee: **The United States of America as represented by the Secretary of the Navy**, Washington, DC (US)
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Primary Examiner—Michael Horabik
Assistant Examiner—Albert K. Wong
(74) *Attorney, Agent, or Firm*—Michael J. McGowan;
Michael F. Oglo; Prithvi C. Lall

(57) **ABSTRACT**

The precision microwave/millimeter wave modulated signal source is a relatively low cost, compact, highly accurate and stable signal source covering the 2 to 40 Gigahertz frequency range. The pulse width and amplitude level of the output signal can be changed on every pulse in the signal pulse train. Pulse width range is 5 nanoseconds to 1 millisecond. Pulse repetition intervals can be changed between each pulse set with usable range from 10 nanoseconds to 100 milliseconds. Interval parameters can be adjusted with 1 nanosecond resolutions with stabilities of ± 200 picoseconds. The highly accurate and versatile selection of signal parameters, along with its compact size, makes this design useful as an embedded built in test signal source. This built in signal source can be used for verification of system performance for many electronic warfare systems.

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- (51) **Int. Cl.**⁷ **H02K 23/00**
- (52) **U.S. Cl.** **341/177; 455/115; 370/205; 324/458; 324/527**
- (58) **Field of Search** **341/177; 455/115; 455/102; 370/205, 212; 324/458, 527**
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